



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/574,018

12/01/2006

Graham Dellaire

3206-276 LAB

9149

24223 7590 10/13/2009

SIM & MCBURNEY
330 UNIVERSITY AVENUE
6TH FLOOR
TORONTO, ON M5G 1R7
CANADA

EXAMINER

PORTNER, VIRGINIA ALLEN

ART UNIT

PAPER NUMBER

1645

MAIL DATE

DELIVERY MODE

10/13/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/574,018	DELLAIRE ET AL.	
	Examiner	Art Unit	
	GINNY PORTNER	1645	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/1/2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-53 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-53 are pending.

Election/Restrictions

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-40, and 44 drawn to a plurality of methods of detecting a fusion protein with a nucleic acid aptamer.

Group II, claim(s) 41-43, 45-53, drawn to a plurality of methods of purifying a fusion protein with a nucleic acid aptamer.

2. The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: Jarvick (WO98/26094), reference cited on the International Search report, and Roming et al (1999, see page 280, Figure 2, Frame D, and narrative) describe the first appearing special technical feature directed to detecting a cell expressed peptide tag fusion protein with a nucleic acid aptamer, therefore the claimed inventions are not so linked by a common special technical feature as to make a contribution over the prior art.

3. This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

Art Unit: 1645

The species are as follows:

Group I: Please select a claimed combination (A, B, C, D) of nucleic acid aptamer which is:

A) 1. Unmodified (claims 1-3, 10-14, 16-18) or

2. Modified (4-5, 19-33, 34-40)

B) 1: single stranded DNA/RNA (claim 2, 20, 35) 2. Double stranded DNA/RNA (claim 2, 3, 20-21, 35-36) 3: hairpin DNA/RNA (claim 2, 20, 35) 4. Protein nucleic acid aptamer (claims 2, 20, 35) 5-7: hybrid combinations of the prior species (claim 2, 20, and 35)

C) Type of tag in the fusion protein

1. Natural tag (claim 6)

2. Engineered (claim 6)

3 prokaryotic DNA binding proteins (claim 7-8, 10, 23-25, 27, 34)

4. modified peptide tag (claim 9, 26)

D) Type of detection

1. Any location “detecting complex”

2. Immunofluorescence (claim 15, 33)

3. Sub-cellular location (claim 16, 32)

4. Sub-nuclear location (claim 16, 32)

5. Immobilized aptamer on nitrocellulose membrane (claim 17)

6. Immobilized aptamer in a microarray substrate (claim 18)

Art Unit: 1645

Group II: Please select a claimed combination (A, B, C, D) of nucleic acid aptamer which is:

- A) 1. Unmodified (claims 41) or
2. Modified (claim 44)

B) Type of aptamer: 1: single stranded DNA/RNA (claim 42) 2. Double stranded DNA/RNA(claim 42-43) 3: protein nucleic acid aptamer (claim 42) 4-6: hybrid combinations of the prior species (claim 42)

C) Type of tag in the fusion protein

1. Natural tag (claim 48)
2. Engineered (claim 48)
3. Prokaryotic tag is a DNA binding protein (claim 49-50)
4. Prokaryotic modified peptide tag (claim 51)

D) Type of aptamer complex formed on a solid matrix or beads :

1. Any type of solid matrix (claim 41)
2. Any type of bead (claim 41)
3. Aptamer covalently bound to sepharose beads (claim 52)
4. Aptamer coupled to paramagnetic particle (claim 53)

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An

Art Unit: 1645

argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

4. The claims are deemed to correspond to the species listed above in the following manner: Please see the listing of species and corresponding claims above.

The following claim(s) are generic: claim 1 is generic.

5. The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: The first appearing species claimed is described by Jarvick (WO98/26094), reference cited on the International Search report, and Roming et al (1999, see page 280, Figure 2, Frame D, and narrative) thus the first appearing special technical feature directed to detecting a cell expressed peptide tag fusion protein with a nucleic acid aptamer. The first appear species being anticipated by the prior art, therefore the claimed species of invention are not so linked by a common special technical feature as to make a contribution over the prior art. Each species evidencing a different chemical structure, function and biological effect when used in a method of detecting/purifying a peptide tag fusion protein; each structure forming complexes with different peptide tag proteins.

Art Unit: 1645

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to GINNY PORTNER whose telephone number is (571)272-0862.

The examiner can normally be reached on flextime, but usually M-F, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Mondesi can be reached on 571-272-0956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ginny Portner/
Examiner, Art Unit 1645
September 23, 2009

/Robert B Mondesi/
Supervisory Patent Examiner, Art Unit 1645